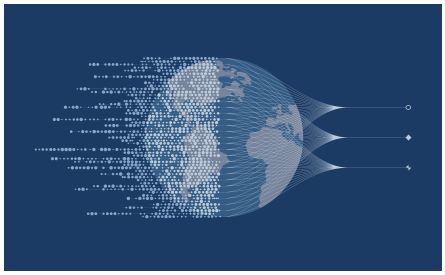

ID: **P2.1-836** Type: **E-poster**

-Learning Event Classification in North-East China Using Augmented Data

A transfer learning approach was adopted, using a VGG16 neural network model to classify earthquakes from non-earthquake events in North-East China, close to the North Korean test site. Magnitudes below 4 are considered for classification of tectonic events (earthquakes) from explosions. Because of the scarcity of observed explosion data, synthetic seismograms were generated using SW4 to augment the observed data so that overfitting doesn't happen during validation. Our preliminary experiment shows promising results which may help us identify any potential future small event.

E-mail

alemayehu.jemberie@us.af.mil

In-person or online preference

Primary author: Mr JEMBERIE, Alemayehu (Air Force Technical Applications Center (AFTAC))

Presenter: Mr JEMBERIE, Alemayehu (Air Force Technical Applications Center (AFTAC))

Session Classification: P2.1 Characterization of Treaty-Relevant Events

Track Classification: Theme 2. Monitoring events and Nuclear Test Sites: T2.1 Characterization of Treaty-Relevant Events